

REMARKS

The following remarks are submitted in response to the Office Action mailed March 22, 2007.

Claims 1, 3-6, 8 and 14 stand rejected as obvious and unpatentable in view of the combination of two references. In particular, claims 1-8 are rejected under 35 U.S.C. §103(a) as obvious over U.S. Pat. No. 6,421,593 to Kempen et al (hereinafter, "*Kempen*") in view of U.S. Pat. No. 6,547,506 to Jacob (hereinafter, "*Jacob*").

Claims 15, 16 and 18 stand rejected as obvious and unpatentable over Kempen in view of U.S. Pat. No. 5,785,372 to Glatzmeier et al.

The rejections of claims will be discussed primarily by reference to the independent claims, claim 1 and claim 15, which will be discussed in order.

As will be appreciated, in light of both the recent decision by the United States Supreme Court in the case of *KSR International Co. v. Teleflex, Inc. et al.*, (decided April 30, 2007), and, the recent Memorandum to all Technology Center Directors from Deputy Commissioner for Patent Operations, Ms. Margaret A. Focarino (regarding interim "points" for obviousness determinations), the assessment of non-obviousness has been reaffirmed to rely on the Graham factors, with the test of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter still providing a helpful insight in determining whether claimed subject matter is non-obvious under 35 U.S.C. §103(a).

The four factual inquiries under *Graham* include:

1. determining scope/contents of the prior art;
2. ascertaining differences between the prior art and claims at issue;
3. resolving level of ordinary skill in the pertinent art; and,
4. evaluating evidence of secondary considerations.

Importantly, the Court noted that the analysis supporting a rejection should be made "explicit" and that it was important to identify an "apparent reason" that would have "prompted" or motivated a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed (emphasis added).

Applicant contends that its arguments herein support a finding of non-obviousness of all claims, in keeping with the *Graham* factors. In addition, Applicant contends that the Examiner has not explicitly provided evidence of an apparent reason for combining the cited references in the manner claimed. Still further, Applicant contends that, even considering common knowledge at the time of the invention, that the disparity between the cited references would not have led a person with ordinary skill in the art to even remotely consider a combination of the cited references. Moreover, Applicant contends that, even if the references were combined in light of the ostensible common knowledge, a person with ordinary skill in the art could not have combined the references to arrive at the results of the claimed invention. Hence, the combination of references even in view of the common knowledge would not yield "predictable results" equivalent to Applicant's invention.

In particular, Applicant contends that a person of ordinary skill in the art would not even remotely consider combining the modular control system of Kempen with the rudimentary teachings of Jacob to arrive at the claimed invention.

Additionally, Applicant contends that its arguments provide valuable insight associated with the lack of "teaching, suggestion or motivation" ("TSM") to combine the prior art, which further supports a finding of non-obviousness with regard to the claimed invention.

The TSM test for obviousness has three basic requirements. First, the combination of references must teach all of the claim elements. Secondly, there must be identified some teaching or suggestion to combine the references in the asserted manner. Thirdly, there must be identified some expectation that the asserted combination would be successful. See MPEP § 2143.

Considering the four inquiries of *Graham*, it is respectfully submitted that a prima facie case of obviousness is not presented by the arguments for the rejection of claim 1, particularly as currently amended, for the following reasons:

The scope and content of the prior art cited was insufficient at the time of the invention to prompt a combination of the cited prior art (Kempen and Jacobs) to arrive at the claimed invention; and, the differences in the cited prior art and the claims at issue are significant and sufficient to conclude that there would be no apparent reason to combine the references to arrive at the claimed invention.

The Office Action does not touch on the additional *Graham* factors of **resolving** (emphasis added) the level of ordinary skill in the pertinent art at the time of the invention, nor does it consider or evaluate evidence of secondary considerations. Applicant reserves the right to do so in the event the Examiner believes this additional information is helpful to the determination of non-obviousness.

In addition to the above, considering the inquiry under the TSM test, Applicant contends that the non-obviousness of the claimed invention is reinforced for the reasons that (1) the cited combination of the references does not teach each and every claim element, (2) no objective teaching or motivation to combine the cited references in the asserted manner has been identified, (3) no expectation of success in such a combination has been identified, and moreover, (4) the cited combination of references clearly teach away from the claimed invention. Consequently, Applicant contends there would be no apparent reason to combine the cited references, and, one skilled in the prior art would not have been prompted to combine the references in the manner claimed, and, the combination would not yield results according to the claimed invention.

Following are Applicant's additional specific arguments directed to its overall contentions as stated above.

Claims Rejection - 35 U.S.C. § 103(a)

(Claim 1)

"Kempen in view of Jacob"

The Examiner asserts that Kempen teaches the elements of claim 1 of Applicant's invention, particularly by equating a "variant module" of Kempen to the individualized, combinable, interrelated modules of the claimed invention (see column 3, lines 1 -11). Applicant respectfully traverses Examiner's rejection and asserts that Kempen teaches primarily a modular military vehicle control system comprised of "interface modules" (see column 1, lines 62 -63; column 2, lines 1-17). Kempen, in the spirit of being his own lexicographer, uses the term "module" to loosely refer both to "interface modules" of a control system and purported "variant modules" representing entirely different types of vehicles. The "interface module" of Kempen satisfies a rational definition of "module"

where a module is a standardized, often interchangeable component of a system or construction that is designed for easy assembly or flexible use.

Applicant contends it is too great a leap to ascribe this rational definition of "module" to the purported "variant module" of Kempen. The examples of "variant modules" described by Kempen include a fire engine and a tow truck/wrecker (see Figures 1 and 14, respectively), along with a dump truck, water pump truck and telephone truck (see column 39, lines 29-32). Further, Applicant contends that the key modularity associated with these examples would reside in the individual interface modules of the control system. When comparing the control system of Kempen's fire engine (see Figure 1) with that of Kempen's tow truck (see Figure 14), the clear dissimilarity and lack of modularity is plain to see. A person of ordinary skill in the art would recognize the challenges associated with creating a common chassis and control system to support the distinct differences between the functions of these types of vehicles.

Kempen has been cited as the Examiner's primary and best reference, and based upon this misapplication of the comparison of "modules," Applicant asserts that a case of prima facie obviousness has not been made, the other references are moot, and, consequently, respectfully requests that the Examiner withdraw his rejection of claim 1 and its dependents and move promptly to allow the subject claims.

Applicant points out additional arguments to support and reinforce a decision by the Examiner to allow the present claims. First, Kempen clearly teaches a singular, unitary body attached to a vehicle chassis, with power and communication hookups: **"a chassis and a variant module"** (emphasis added; see column 3, lines 2-3; column 26, lines 20-54). In contrast, the Applicant's invention proposes a "mix and match" approach with multiple distinct but integral

specialized modules, each with a different function and variable attachment requirements.

Both the control system configuration and the mechanical fixture system to accommodate the attachment of multiple modules of the claimed invention is fundamentally different than what is required for attachment of a single, complete module, as described in Kempen. Since the primary thrust of Kempen's invention is the delivery of modular control systems dependent on various interface components, Kempen's discussion of a modular vehicle arrangement is lacking in its disclosure. For example, with multiple modules of various sizes, a standardization scheme re: attachment or "fixation points" is required so that each module is sized for a fractional extent of the underlying platform. Nothing in Kempen leads one to believe that the attachment points are anything more than the standard attachment points used for attaching any standard truck body to a chassis. Inasmuch as Kempen relies on these limited attachment points, and singular connectors, he is necessarily also limited to providing unitary systems. One skilled in the art of truck fabrication at the time of the claimed invention would not have been motivated to develop multi-site attachment points as in the claimed invention.

Further, when replacing only one, identically sized module, a single set of connectors suffices, i.e. one set of mechanical attachments, one fluid connector, and one electrical connector (see column 28, line 67, "two mating connectors 1681 and 1682). For Applicant's scheme of multiple functional modules of various sizes and in various combinations, a plurality of connection sites must be furnished on the standard platform, both mechanical attachments and multiple sets of fluid and electrical connectors. The Applicant has described and claimed these aspects.

With further reference to claim 1, and considering Applicant's arguments herein, Examiner's admission that Kempen does NOT disclose "fixation sites defining fractional locations" (see Office Action, page 2, item 3) further supports Applicant's contention of non-obviousness. In contrast with the claimed invention, Kempen does not teach a plurality of fixation sites, a platform capable of accepting at least two functional modules simultaneously, and functional modules sized as a standardized fraction of the total area of the platform and equipped with fixation means.

The Examiner has relied on the introduction of a new piece of prior art, Jacob, to support the present rejection of claims. Jacob teaches an arrangement of separate, removable containers, i.e., open bins, in the payload area of a multi-task truck. Examiner asserts that the containers of Jacob are equivalent in concept to the fixed, mateable, yet exchangeable functional modules of the claimed invention. Applicant contends there is no equivalence and that Jacob's bins would neither be construed nor relied on by a person of ordinary skill in the art as the "same elements" as the complex, functional modules of the claimed invention, irrespective of how the bins might be arranged on the back of a truck. Jacob's bins are merely boxes that can be filled with parts or material.

Applicant respectfully traverses Examiner's rejection of independent claim 1 and associated dependent claims based on a combination of Kempen with Jacob. Jacob teaches a multi-task truck with a crane and hose reel, whereby containers may be placed in the truck bed by the crane. As detailed in column 2, lines 52-65, these containers simply hold raw materials, such as, in Jacob's example, spare parts, bricks, and sand and cement. The Examiner has described the containers of Jacob as "smaller and plural modules" (see Office Action, page 3, fourth line from end). However, Applicant respectfully asserts that this creates a continuing, lexicographic slippery-slope that suggests the evolution of a simple box may eventually become the equivalent of the specialized, functional modules

of the claimed invention. In light of this arguably speculative association, Applicant respectfully traverses Examiner's suggested equivalence between the bins of Jacob and the modules of the claimed invention.

Examiner's present grounds for rejection appears to hinge on the asserted teachings of Jacob. Consequently, it bears repeating that, unlike Applicant's specialized functional modules, Jacob's modules are simply open containers. The containers have no electrical or fluid connections. The containers have no mechanical attachments for rigidly affixing to Jacob's truck. The containers are simply placed into the open truck bed which is subdivided by movable tailgates. The containers have only "eyes" or rings at their corners to enable the crane to hoist them via lifting straps (column 2, lines 53-58). Consequently, Jacob does NOT teach "fixation sites defining fractional locations along an overall platform extent" since the containers are never mechanically, functionally or otherwise attached to the platform.

Additionally, the Examiner's asserted combination of Kempen in view of Jacob appears to rely on a finding of a common element between the two, which in this case, appears to be a generic "module". As previously described, Applicant contends that the bins of Jacob are NOT equivalent elements to either the single unitary body of Kempen or Applicant's functional modules. Further, Applicant contends that an allegation that art can be combined has no bearing on whether the artisan would have made the combination; the law requires not just evidence of ability, but also evidence of motivation. See MPEP §2143.01 ("mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.")

Moreover, as discussed above, the mere existence of a common element across references is not a prima facie suggestion to combine those references. Examiner's argument for rejection appears to presume a common element, a "module," exists between the two cited references, perhaps providing an apparent reason to combine, when in fact, no such common element exists.

The combination of Kempen and Jacob thus fails to teach the claimed elements of Applicant's invention, including a platform with a plurality of fixation sites to accommodate at least two functional modules, each of which are sized to standardized fractions of the platform area. Instead, Kempen teaches only modular control systems to support different unitary bodies for attachment to a chassis as one unit. Further, Jacob teaches portable bins arranged on the bed of a truck. Applicant respectfully contends that the Examiner has failed to provide explicit support for an apparent reason to combine the bins of Jacob with the control modules of Kempen to arrive at the claimed invention. In addition, Applicant contends that any such combination, regardless how implausible, would not yield results equivalent to that of the claimed invention. Further, there is no motivation to combine the specialized unitary body of Kempen, which completely and totally changes the character of the vehicle, with either Jacob's removable containers which simply hold different raw materials, or with Jacob's alternative embodiment of affixing numerous components to a skid plate which is then winched onto the truck bed as a whole.

Consequently, for the reasons stated above, Applicant contends that there could be no objective teaching or motivation to combine Kempen in view of Jacob to arrive at the claimed invention, and thus, no apparent reason to combine, and consequently, the Office Action fails to make a prima facie case of obviousness. Therefore, Applicant respectfully requests that the Examiner allow claim 1 and its dependents, claims 3-6, 8 and 14.

Claims Rejection - 35 U.S.C. § 103(a)**(Claim 15)****"Kempen in view of Glatzmeier"**

The Examiner has rejected claims 15, 16 and 18 as obvious and unpatentable over Kempen in view of U.S. Pat. No. 5,785,372 to Glatzmeier et al (Glatzmeier). Applicant contends that claim 15 in its present form is in proper form for allowance for the reasons associated with remarks above relating to claim 1 and for the additional reasons cited below.

The Examiner relies on the combination of Kempen and Glatzmeier to assert that Applicant's independent claim 15 and dependent claims 16 and 18 should be rejected for obviousness. Applicant respectfully traverses the Examiner's rejections and contends that the proffered combination is inappropriate and would not yield the results of the claimed invention.

Glatzmeier teaches a "self-supporting box structure for a utility vehicle" which "permits a large number of embodiment variants for the equipment cab, **which are then not further altered in operation**" (emphasis added; see column 1, lines 31-35).

Glatzmeier's configuration is merely a permanent structure to support equipment racks, which are not themselves removable. Clearly, this invention is not intended as a modular vehicle in anything like the sense of Applicant's invention, which is designed to be easily modified by users to meet the operational needs of the moment.

Again, Glatzmeier provides a "structural arrangement" for assembly during manufacturing that is "**not further altered in operation**" (emphasis added). In

essence, Glatzmeier simply describes a type of architectural arrangement or structural design to produce one version of the single, unitary body of Kempen. Consequently, the basis for combination, i.e., the "apparent reason" cited by the Examiner, is that it would have been obvious "to use the smaller and plural modules of Glatzmeier et al. because such modification would **provide rapid and free assembly of variously fitted equipment cabs** ... due to rapidly changing conditions of use" (emphasis added), (see Office Action, page 5, last third of first paragraph). Applicant contends this is not a correct interpretation of the teaching of Glatzmeier and that Glatzmeier combined with Kempen would not yield the results cited of "rapid and free assembly" due to "changing conditions of use."

There is only one box structure in Glatzmeier, which is plainly not "a plurality of said modules". The box structure contains a number of compartments, which are rigidly assembled to form a unitary body. The point of novelty in Glatzmeier deals with provision of structural integrity, not modularity. There is no evidence these compartments are anything other than unalterable components of the box structure. These compartments cannot be described as "modules" in the sense of the claimed invention.

Again, Glatzmeier simply recites a structural configuration to ease assembly during manufacture. Manufacture is NOT an operational setting as contemplated by Applicant's invention, and, Kempen cannot be modified in light of Glatzmeier to provide the claimed invention, particularly given the recognition of the individual structural instability of Glatzmeier's compartments.

The Examiner cites and relies on a single paragraph in Glatzmeier, column 1, lines 20-28, as an indication that Glatzmeier was describing "smaller and plural modules". Applicant respectfully points out that the use of this reference is

somewhat misdirected due to the teachings of the underlying art. As previously pointed out in earlier office actions, these lines refer not to Glatzmeier's invention but to other prior art (Hawelka & Staudinger, DEC3517290, US4830421), which he says describes a number of modules that when combined form a box structure, and that since each module has to be self-supporting, has the disadvantage that "the empty weight of such a box structure is relatively high for a utility vehicle".

As Applicant indicated in previous office actions, Glatzmeier mischaracterized this prior art. The modules cited in Hawelka are independent, cylindrical equipment racks fitted into the body of the vehicle, which can be changed out for other racks. There are no electrical or fluid interconnections to these racks. The attachment mechanism is entirely in the fixed body of the vehicle, attaching to pins or an axle on each module.

In contrast, Applicant claims modules that are not fitted into the body of the vehicle, but that together comprise the body of the vehicle. There is no indication in Hawelka that the body itself is changeable or modular. Rather, the only teaching in the reference is that equipment racks may be fitted to a body.

There is no apparent motivation to combine the unitary, removable and functional module of Kempen with the fixed, inert structure of Glatzmeier. Hence, Applicant respectfully traverses the rejection of claims 14, 15, and 16 by the Examiner and requests the subject claims be allowed.

Counterarguments to Examiner's Response to Arguments

At page 6, paragraph 10 of the Office Action, the Examiner asserts that Jacob shows the "unique functions provided by the modules" to support the new ground for rejection requiring Kempen in combination with Jacob. However, Applicant contends that Jacob's "modules" as referenced by the Examiner are simply

passive, inert containers for holding items and raw materials; they bear no resemblance to the functional modules of Applicant's invention. Therefore, for the other reasons cited earlier, Applicant respectfully maintains that the new ground(s) for rejection based on Jacob are improper, therefore, the rejection is moot and claims 1, 3-6, 8, and 14 are in proper form for allowance.

Further, at page 6, paragraph 11 of the Office Action, The Examiner argues that making Kempen's single module into similar multiple modules requires only routine skill in the art. Applicant respectfully disagrees for the reason that fundamental and nonobvious modifications and invention are necessary for a multiple module scheme, as claimed by the Applicant. First, the modules must be sized in standardized fractions, requiring innovation in the design of each module according to its specific function. Second, a plurality of fixation sites must be furnished to accommodate variously sized modules, as opposed to only one set of fixation sites to fit all single modules. Third, the modules must remain individually autonomous while retaining structural integrity to allow rapid assembly and dismantling. Fourth, the fact that the references cited by the Examiner reveal there is no prior art cited that teaches multiple functional modules on a platform such as Applicant describes is powerful evidence of the nonobviousness of the claimed invention. Applicant contends that it would, at a minimum, require a high level of skill, not an ordinary level of skill, to arrive at the claimed invention in light of the cited references.

Moreover, at page 7, paragraph 12, the Examiner argues that items 176 and 177 of Glatzmeier are equivalent to a "plurality of fixation sites" as in the claimed invention. However, a close examination of Figure 2 of Glatzmeier reveals that the plurality of "fixation sites" referenced by the Examiner as "items 176 and 177" are not the equivalent of the plurality of standardized fixation sites of the claimed invention to support a plurality of modules. Instead, items 176 in Figure 2, of which there appears to be only two in number, and at most four, are merely the

standard attachment points for the cab of a truck. Further, items 177 in Figure 2, of which there appears to be only two and at most four, are merely standard attachment points for attaching any standard body to the chassis of a truck. The fixation sites of Glatzmeier are nothing more than standard attachment points. They do NOT equate to the plurality of fixation points of the claimed invention, further reinforcing Applicant's contention that the combination of Kempen and Glatzmeier does not yield the claimed invention, and hence, Applicant's invention is not obvious.

CONCLUSION

It is the Applicant's strong belief, supported by the above evidence, that the Examiner has not shown at least two of the three criteria for a prima facie case of obviousness, specifically motivation to combine reference teachings and references that teach or suggest all the claim limitations without hindsight derived from the Applicant's disclosure. Accordingly, Applicant respectfully requests that the Examiner withdraw his rejections and issue a Notice of Allowance for the claimed invention. It is believed that no additional fees are required with the filing of this paper. In the event, however, fees are due with this paper, please contact the undersigned.

Should the Examiner deem it helpful, he is encouraged to contact Applicant's attorney at (650) 474-8400.

Respectfully submitted,



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